

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

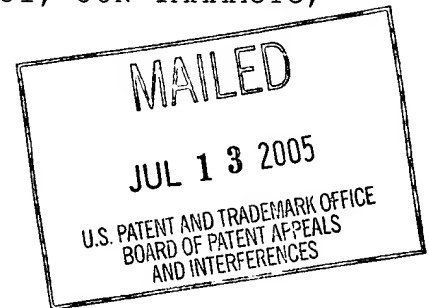
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte KIYOTAKA ISHINO, TAKATOSHI KURATSUJI, JUN YAMAMOTO,  
and TAKASHI IKETAKI

Appeal No. 2005-1298  
Application No. 09/423,523

ON BRIEF



Before TIMM, JEFFREY T. SMITH, and PAWLIKOWSKI, Administrative Patent Judges.

PAWLIKOWSKI, Administrative Patent Judge.

**DECISION ON APPEAL**

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 4 through 9, and 12 through 15. A copy of claims 4 and 5 is set forth below:

4. A method of composting comprising providing a heap of compostable matter and covering the heap with a film comprising a polyether polyamide block copolymer, said film being impermeable to water in liquid form, but having a water vapor permeability thereof at least  $300 \text{ g/m}^2 \cdot 24\text{h}$ , an oxygen permeability at least  $1,000 \text{ cm}^3/\text{m}^2 \cdot 24\text{h} \cdot \text{atm}$  and a carbon dioxide permeability at least  $10,000 \text{ cm}^3/\text{m}^2 \cdot 24\text{h} \cdot \text{atm}$ .

5. A method according to claim 15, wherein the polymer containing polyether chains is a polyoxyalkylene block polymer.

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The examiner relies upon the following references as evidence of unpatentability:

Tesch	4,047,327	Sep. 13, 1977
Flesher	5,506,024	Apr. 9, 1996
Werenicz et al. (Werenicz)	5,660,887	Aug. 26, 1997
Warzelhan et al. (Warzelhan) WO 9615174 A1		May 23, 1996
(Published World Intell. Prop. Org. Patent Application)		

Claims 4 through 9 and 12 through 15 stand rejected under 35 U.S.C. § 103 as being obvious over Flesher or Werenicz or Warzelhan, each in view of Tesch.

#### **OPINION**

We have carefully reviewed appellants' brief and reply brief and the answer and the evidence of record. This review has led us to conclude that the examiner's rejection is not sustainable.

#### **I. The 35 U.S.C. § 103 Rejection of claims 4-9 and 12-15**

The examiner's position for this rejection is set forth on pages 3 through 4 of the answer. Appellants' position regarding this rejection is set forth on pages 2 through 6 of the brief, and on pages 1 through 3 of the reply brief.

Essentially, the examiner relies upon Flesher, Werenicz, and Warzelhan, for disclosing water vapor permeable films considered to possess appellants' claimed gas permeabilities. Appellants do not dispute these findings made by the examiner. However, appellants argue that there is no motivation to combine the references as the examiner has done. Brief, page 4. Also,

appellants argue that the applied references "are directed to nonanalogous art areas." Brief, pages 4-6.

With regard to whether the references are combinable, the examiner argues that one of ordinary skill in the art would have fully realized that the gas exchange sought by Tesch can be achieved by the use of the gas permeable films taught by each of the primary references, without the need for slitting the films. Answer, page 4. The examiner also comments on the limitation found in claim 4, regarding the film being impermeable to water in liquid form. The examiner states that it is not seen that this limitation distinguishes from the applied art because the films of the primary references possess the characteristic of being impermeable to liquid water. Answer, page 4.

We note that if a proposal for modifying the prior art in an effort to attain the claimed invention causes the art to become inoperable or destroys its intended function, then the requisite motivation to make the modification would not have existed. See In re Fritch, 972 F.2d 1260, 1265 n.12, 23 USPQ2d 1780, 1783 n.12 (Fed. Cir. 1992).

In the instant case, as pointed out by appellants on page 2 of the reply brief, Tesch teaches that permeability to water, in liquid form, is an object of the invention of Tesch. See column 5, lines 49 through 51 of Tesch. See also column 2, lines 60, through column 3, line 19, and column 6, lines 1-7. Here, Tesch explains that in accordance with the present invention, the disadvantages of the difficulty in supplying water to the ground is minimized. Hence, modifying Tesch by employing the sheets of either Flesher, Werenicz, or Warzelhan would destroy the intended function of the sheet of Tesch (permeability to rain

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and/or irrigation water). Furthermore, the examiner acknowledges that the sheets of each of Flesher, Werenicz, or Warzelhan possess the characteristic of being impermeable to liquid water. Answer, page 4. In contrast to the dissenting opinion, we believe the intended function of permeability to liquid water applies to both embodiments of Tesch (polymeric material with slits, or the fibrous construction with or without slits). For example, we note that the intended function of allowing for passage of liquid water, described at column 2, line 60 through column 3, lines 1-10, is immediately followed by a description of both embodiments, found in column 3, lines 11-20, of Tesch.

In view of the above, we therefore agree with appellants that there is no motivation to combine the references as proposed by the examiner. We therefore reverse the rejection. We need not reach the issue of non-analogous art in making this determination.

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II. Conclusion

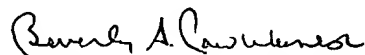
The 35 U.S.C. § 103 rejection of claims 4-9 and 12 through 15 as being obvious over Flesher, or Werenicz, or Warzelhan, each in view of Tesch is reversed.

**REVERSED**



CATHERINE TIMM  
Administrative Patent Judge

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) APPEALS AND  
) INTERFERENCES



BEVERLY A. PAWLIKOWSKI  
Administrative Patent Judge

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JEFFREY T. SMITH, Administrative Patent Judge, dissenting.

I respectfully dissent from the majority's decision to reverse the prior art rejections advanced by the Examiner on this appeal.

I share the Examiner's conclusion that it would have been obvious for one with ordinary skill in this art to use the permeable films of Flesher for the fibrous mulch/compost sheet disclosed by Tesch.<sup>1</sup>

A person of ordinary skill in the art would have recognized the problems associated with composting. Appellants have admitted in the discussion of the Background of the Invention, specification page 1, that it was known that to achieve good quality compost it is necessary to have suitable levels of temperature, moisture and sufficient oxygen. It was recognized that the surface of uncovered compost heaps would dry out, harden and prevent oxygen (air) passage into the interior of the heap and prevent or lessen the fermentation process. It was also recognized that rain on an uncovered compost heap also reduced the fermentation process in the interior. According to Appellants, to overcome these difficulties a person of ordinary skill in the art applied polymer sheeting to cover the compost heaps. The use of the polymer sheet to cover compost heaps produced problems with oxygen (air) transfer and build up of water vapor and carbon dioxide thus having a negative effect on the fermentation process.

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<sup>1</sup> The Examiner relies on the Flesher, Werenicz, and Warzelhan (WO 96/15174) references as each describing permeable films. I will limit my discussion to the Flesher reference.

Tesch discloses mulch sheeting that is also suitable for use as compost sheeting. Tesch discloses the sheeting was made of either a polymeric film or fibrous material. (Col. 6, ll. 43-52). Tesch discloses the mulch sheeting was developed to address the problems associated with air transfer recognized in previous mulch sheets. (Paragraph bridging columns 2-3). Tesch discloses that "air permeability is provided in the polymeric sheet by a precisely controlled slitting operation or in the fibrous sheet by control of, for example, the degree of compression during fabrication." (Col. 3, ll. 65-68). Tesch recognizes that the use of slits in the mulch sheet also allows the permeability to rain. (Col. 5, ll. 49-52). However, in the discussion of the composting embodiment, Tesch discloses the use of slits is optional. Specifically, Tesch discloses "[s]hould the air permeability of the fibrous mulch sheets by [sic, be] insufficient, they too may be slit." (Col. 6, ll. 65-66). Thus, Tesch recognizes that when the sheeting is used for composing the use of slits is optional.

Appellants have not disputed the Examiner's finding that the permeable films of Flesher have the characteristics of the film required by the presently claimed invention. Flesher discloses permeable films that possess air/gas permeability characteristics recognized by persons of ordinary skill in the art to be desired in mulch/compost sheeting. Thus, the air/gas permeable films of Flesher and Tesch are functionally equivalent. "Express suggestion to substitute one equivalent for another need not be present to render such substitution obvious." In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982). A person of ordinary skill in the art would have

reasonably expected that the air/gas permeable films of Flesher could be used as an air/gas permeable film for the composting process of Tesch. "For obviousness under § 103, all that is required is a reasonable expectation of success." In re O'Farrell, 853 F.2d 894, 904, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988).

Appellants argue that the fibrous sheet of Tesch is not equivalent to the materials of Flesher. (Brief, p. 4). I do not agree. The fibrous material of Tesch and the polymeric material of Flesher possess air/gas permeability characteristics. Thus, the materials are functionally equivalent.

Appellants argue that Tesch teaches that the use of slits is "necessary" where gas permeability is desired in a polymer sheet. (Brief, p. 3). This argument is not persuasive. Appellants appear to be referring to the portion of the Tesch reference, column 4 lines 58 to 61, which states:

"When the polymeric film of, for example, polyethylene is employed it is desirable, if not necessary, to appropriately slit the web to allow appropriate transfer of gases above and beneath the plane of the mulch sheet." (Underlining added). This portion of the Tesch reference would have suggested to a person of ordinary skill in the art that the use of slits is optional, and would depend upon the property of the polymeric film. Note that Tesch also teaches that the use of slits is optional when using the fibrous material. (Col. 6, ll. 65-6). "[I]n a section 103 inquiry, 'the fact that a specific [embodiment] is taught to be preferred is not controlling, since all disclosures of the prior art, including unpreferred



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embodiments, must be considered.'" Merck & Co. v. Biocraft Labs., Inc., 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir. 1989) (quoting In re Lamberti, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976)). A person of ordinary skill in the art employing a polymeric material with appropriate air/gas permeability would have recognized that the use of slits in the material was not necessary.

Appellants argue that Tesch and Flesher are directed to nonanalogous art areas. (Brief, pp. 4-5). Specifically, the Appellants argue that the references are not from the same field of invention and that the references do not attack the same problem. (Brief, p. 5). Appellants disagreed with the Examiner's position that the references are analogous because they are concerned with utilization of polymeric materials having gas permeabilities properties. (Brief, p. 5).

I do not agree with Appellants' position that Tesch and Flesher are nonanalogous. "A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." Clay, 966 F.2d at 659, 23 USPQ2d at 1061. In the present case, the relevant properties of the polymeric sheet material used in Tesch involve the permeability of air/gas. This property is specifically discussed in the Flesher reference. The list of stated utility of the polymeric film material disclosed in Flesher is non exhaustive. Specifically Flesher states "[a]ll the properties listed above make it possible to employ polyetheresteramide-based films in accordance with the invention

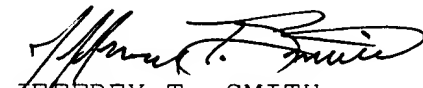
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in many application[s]. . . . " (Col. 3, ll. 20-23). Flesher further discloses a preferred utility for article that is intended for contact with the human or animal body. However, this disclosure would not preclude a person of ordinary skill in the art from suitability using the air/gas permeable material. See Merck, supra.

For the reasons set forth above and in the answer, I believe the Examiner has established a prima facie case of obviousness within the meaning of 35 U.S.C. § 103 with respect to at least appealed claim 4. I express no view concerning the other claims on appeal since the obviousness versus nonobviousness of these claims has not been separately addressed by the majority.

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In light of the foregoing, I would uphold the Examiner's  
§ 103 rejections, for the reasons provided above, and by the  
Examiner.

  
JEFFREY T. SMITH

Administrative Patent Judge

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